

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
24 July 2003 (24.07.2003)

PCT

(10) International Publication Number  
**WO 2003/059778 A3**

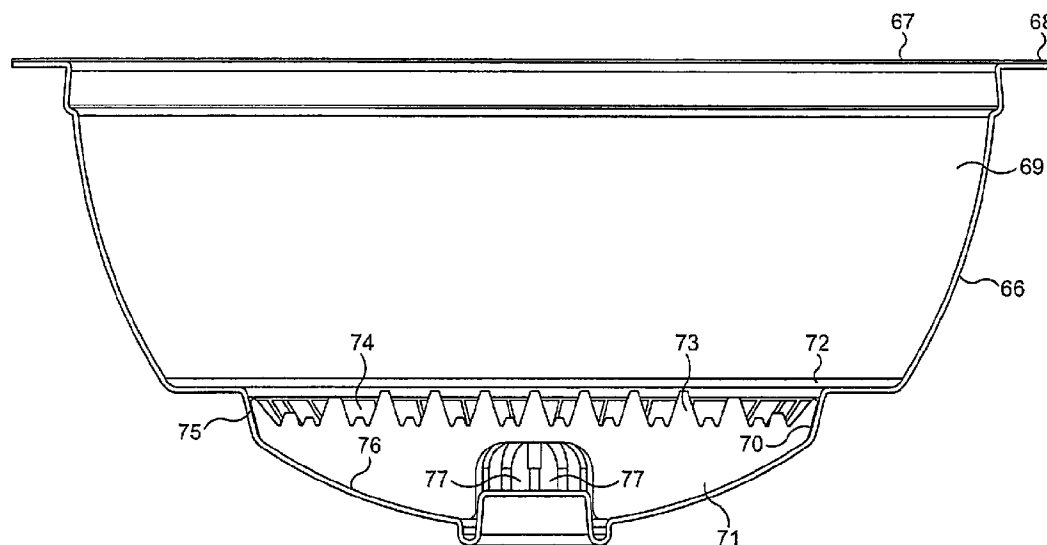
- (51) International Patent Classification<sup>7</sup>: **B65D 81/00**, 85/804 (74) Agent: THOMAS, Alain; Avenue Mestlé 55, CH-1800 Vevey (CH).
- (21) International Application Number: PCT/EP2003/000384 (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (22) International Filing Date: 13 January 2003 (13.01.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 02000943.7 16 January 2002 (16.01.2002) EP (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- (71) Applicant (*for all designated States except US*): SOCI-ETE DES PRODUITS NESTLE S.A. [CH/CH]; P.O. Box 353, CH-1800 Vevey (CH).
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): DENISART, Jean-Luc [CH/CH]; Le Vigny 2, CH-1096 Cully (CH). CAHEN, Antoine [CH/CH]; Les Ateliers du Nord, Place du Nord 2, CH-1005 Lausanne (CH). YOAKIM, Alfred [FR/CH]; Ch. de la Routiaz 2, CH-1806 St-Légier-La Chiesaz (CH).

**Declarations under Rule 4.17:**

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK,

[Continued on next page]

(54) Title: CLOSED CAPSULE WITH OPENING MEAN



(57) Abstract: The present invention relates to a closed capsule designed to be extracted under pressure in an extraction device, containing a substance (69) for the preparation of a beverage, comprising a closed system (66, 67) containing the said substance (69) and a means (73) inside the said system allowing the said capsule to be opened at the time of its use and allowing the said beverage to flow out without contact with its extraction system.



MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent

(GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

**Published:**

- with international search report

**(88) Date of publication of the international search report:**

8 January 2004

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

# INTERNATIONAL SEARCH REPORT

Internati      plication No  
PCT/EP 03/00384

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7    B65D81/00    B65D85/804

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7    B65D    A47J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

| Category ° | Citation of document, with indication, where appropriate, of the relevant passages   | Relevant to claim No.            |
|------------|--|----------------------------------|
| X, P       | WO 02 081337 A (MAJER DOGLIONI LUCA<br>;TUTTOESPRESSO S P A (IT))<br>17 October 2002 (2002-10-17)<br>page 7, line 15 -page 10, line 3; figures<br>4-10 | 1-3, 5, 6,<br>8, 21-24,<br>26-29 |
| X          | GB 1 256 247 A (KANTOR INTERNATIONAL)<br>8 December 1971 (1971-12-08)<br>cited in the application<br>page 1, line 53 -page 2, line 48; figures<br>1-7  | 1, 21-24,<br>26, 27              |

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

° Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \* & \* document member of the same patent family

Date of the actual completion of the international search

22 May 2003

Date of mailing of the international search report

25/07/2003

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Berrington, N

## INTERNATIONAL SEARCH REPORT

Internat. Application No.

PCT/EP 03/00384

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category ° | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No.               |
|------------|---|-------------------------------------|
| X          | US 5 259 295 A (TIMM EBERHARD)<br>9 November 1993 (1993-11-09)<br><br>column 3, line 28 - line 50<br>column 4, line 9 - line 32; figures<br>1-3,7,9,10<br>--- | 1-6,<br>8-13,15,<br>21-24,<br>26-29 |
| X          | DE 23 27 264 A (BEDNARTZ HUGO)<br>2 January 1975 (1975-01-02)<br>page 11, line 3 -page 12, line 7; figures<br>6-7A<br>---                                     | 1,26                                |
| X          | US 4 077 551 A (MANARESI ADRIANA)<br>7 March 1978 (1978-03-07)<br>column 2, line 46 -column 3, line 36;<br>figures 4,5<br>---                                 | 1-3,<br>26-29                       |
| X          | FR 2 620 921 A (FAFOURNOUX BERNARD)<br>31 March 1989 (1989-03-31)   | 1                                   |
| A          | page 4, line 11 -page 5, line 23; figures<br>3,4<br>---   | 4                                   |
| X          | EP 0 451 980 A (GEN FOODS KRAFT LTD)<br>16 October 1991 (1991-10-16)<br>column 9, line 13 - line 52; figures 5A,5B<br>-----                                   | 1                                   |

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/EP 03/00384

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

# INTERNATIONAL SEARCH REPORT

on patent family members

Intern application No

PCT/EP 03/00384

| Patent document<br>cited in search report |   | Publication<br>date | Patent family<br>member(s)   | Publication<br>date  |
|---|---|---------------------|--|--|
| WO 02081337                               | A | 17-10-2002          | IT MI20010741 A1<br>WO 02081337 A1   | 07-10-2002<br>17-10-2002   |
| GB 1256247                                | A | 08-12-1971          | AT 283183 B<br>BE 740896 A<br>CH 515155 A<br>DE 1954209 A1<br>ES 153070 Y<br>FR 2022482 A5<br>IE 33402 B1<br>LU 57420 A1<br>MT 598 A<br>NL 6916281 A<br>OA 3156 A                  | 27-07-1970<br>01-04-1970<br>15-11-1971<br>27-05-1970<br>16-10-1970<br>31-07-1970<br>12-06-1974<br>04-03-1969<br>11-09-1971<br>06-05-1970<br>15-12-1970 |
| US 5259295                                | A | 09-11-1993          | DE 9013838 U1<br>AT 119368 T<br>DE 59104862 D1<br>DK 479111 T3<br>EP 0479111 A1<br>ES 2071182 T3<br>HK 157995 A<br>JP 4364818 A<br>SU 1837834 A3<br>US 5287796 A                   | 06-02-1992<br>15-03-1995<br>13-04-1995<br>24-07-1995<br>08-04-1992<br>16-06-1995<br>13-10-1995<br>17-12-1992<br>30-08-1993<br>22-02-1994               |
| DE 2327264                                | A | 02-01-1975          | DE 2327264 A1  | 02-01-1975   |
| US 4077551                                | A | 07-03-1978          | NONE   |  |
| FR 2620921                                | A | 31-03-1989          | FR 2620921 A1  | 31-03-1989   |
| EP 0451980                                | A | 16-10-1991          | AT 111856 T<br>CA 2039243 A1<br>DE 69104106 D1<br>DE 69104106 T2<br>DK 451980 T3<br>EP 0451980 A2<br>ES 2060297 T3<br>HK 146494 A<br>JP 2690207 B2<br>JP 5097166 A<br>KR 170775 B1 | 15-10-1994<br>01-10-1991<br>27-10-1994<br>19-01-1995<br>20-02-1995<br>16-10-1991<br>16-11-1994<br>30-12-1994<br>10-12-1997<br>20-04-1993<br>30-03-1999 |